

## **NE98 Random Digit Dial Expenditure Survey: Overview**

The 1996 Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) requires each regional Fishery Management Council to consider the effects of its regulations on fishing communities as well as fishery participants. In recent years, declining abundance of many federally managed fish stocks have resulted in more restrictive regulations for both commercial and recreational fisheries. In some instances (e.g., the rockfish and salmon fisheries on the Pacific coast), these harvest restrictions have resulted in heightened awareness of the recreational fishery, both as a source of fishing mortality and as a fishery sector likely to be impacted by regulations. This economic survey is intended to help address regulatory requirements of the MSFCMA by (1) providing the data needed to estimate economic impacts of the saltwater recreational fishery on coastal economies of the Pacific coast. The survey data will also be used (2) as a basis for comparison with saltwater fishing expenditures estimated by the U.S. Fish and Wildlife Service (USFWS) in its National Survey of Fishing, Hunting and Wildlife-Associated Recreation, and (3) to estimate a Random Utility Model of angler decisions regarding fishing site, mode and target species for one-day fishing trips.

The economic data will be collected as a supplement to the Marine Recreational Fishery Statistics Survey (MRFSS), a survey sponsored annually by the National Marine Fisheries Service which provides estimates of aggregate marine recreational harvest and effort in designated coastal subregions of the U.S. On the Pacific coast, the MRFSS covers four subregions: southern California, northern California, Oregon and Washington. The MRFSS consists of two components: a random telephone survey and a creel survey.

The MRFSS Telephone Survey is a random survey of coastal county households which is conducted at two-month intervals throughout the year. Household members identified in the MRFSS Telephone who had gone saltwater recreational fishing in the previous two months are asked details of each day fished during that time period. The proportion of total household contacts that include at least one two-month angler and the mean number of angler days per angling household (as estimated from the MRFSS Telephone for each two-month survey wave), together with U.S. Census data on total numbers of households residing in coastal counties, are then used to estimate the aggregate number of angler days fished by coastal county residents during each survey wave.

The MRFSS Intercept Survey is a creel survey in which anglers are intercepted and interviewed at fishing sites. The Intercept sample is stratified by survey wave, subregion, and fishing mode. Data collected in the MRFSS Intercept on the angler's county of residence are used to estimate the proportion of angler days accounted for by non-coastal county residents, which is then used to expand the estimates of aggregate fishing effort by coastal county residents (as derived from the MRFSS Telephone) to include non-coastal county residents. The MRFSS Intercept also provides estimates of the numbers and species composition of fish caught per angler day. These estimates of mean harvest per angler day, combined with estimates of the aggregate number of angler days (as described previously), are used to calculate aggregate harvest by subregion, species category, fishing mode and survey wave.

### **GENERAL APPROACH AND SAMPLING STRATEGY**

The economic survey will include three components: (1) add-on questions to the MRFSS Intercept Survey (hereafter referred to as the Intercept Add-On), (2) a telephone interview administered as a follow-up to the Intercept Add-On (hereafter referred to as the Telephone Follow-Up), and (3) add-on questions to the MRFSS Telephone Survey (hereafter referred to as the Telephone Add-On). Data gathered in the Intercept Add-On and Telephone Follow-Up will be used to address the three objectives described in Section 1.0. Some of the questions asked in the Intercept Add-On and Telephone Follow-Up will be replicated in the Telephone Add-On for the purpose of evaluating and addressing potential sources of bias in the other two surveys. Because the economic survey will be conducted as a supplement to the MRFSS, maximum sample sizes for the Intercept Add-On and Telephone Follow-Up will be determined by the base sample size for the MRFSS Intercept Survey, and for the Telephone Add-On by the base sample size for the MRFSS Telephone Survey.

### **Add-On to MRFSS Telephone Survey**

The MRFSS Telephone Survey customarily begins with screening questions to determine whether anyone in the household has ever gone saltwater sport fishing. If the initial household contact answers negatively on behalf of the household, then the interview is terminated. However, if the contact indicates that at least one household member has gone saltwater fishing in the previous two months, the interviewer attempts to interview all such two-month anglers in the household. Proxy interviewing is allowed in the base MRFSS Telephone Survey if all two-month anglers are not present at the time of the interview.

The Telephone Add-On questions will be administered to two-month anglers identified in the base MRFSS Telephone who: (1) are at least 16 years of age, and (2) provided responses to all “key” data elements on the base MRFSS Telephone survey instrument (key elements being date, mode and fishing county for the most recent day fished). While proxy information is allowed in the base MRFSS Telephone Survey, the Telephone Add-On questions will be asked only of respondents who are actual two-month anglers and will be asked of no more than one eligible respondent per household. The Telephone Add-On database will be designed so that anglers’ responses to the base MRFSS Telephone Survey can be linked with their responses to the Telephone Add-On interview. The database will also include the date that the Add-On interview was completed, to allow calculation of the time elapsed since the date of the angler’s most recent fishing trip.

FINAL DISPOSITION RESULTS, NORTHEAST REGION, WAVES 2-6, 1998

SOURCE: MACRO INTERNATIONAL %#	WAVE 2				WAVE 3				WASVE 4				WAVE 5				WAVE 6			
	NORTH ATLANTIC TOTAL		MID ATLANTIC TOTAL		NORTH ATLANTIC TOTAL		MID ATLANTIC TOTAL		NORTH ATLANTIC TOTAL		MID ATLANTIC TOTAL		NORTH ATLANTIC TOTAL		MID ATLANTIC TOTAL		NORTH ATLANTIC TOTAL		MID ATLANTIC TOTAL	
	#		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
FAILED PRESCREENING	1079	16.4%	3271	18.8%	3653	18.7%	8585	18.4%	8784	18.2%	24693	23.3%	2953	19.5%	9662	18.0%	844	16.1%	5260	16.7%
BUSY	60	0.9%	146	0.8%	189	1.0%	567	1.2%	221	0.5%	444	0.4%	42	0.3%	108	0.2%	19	0.4%	131	0.4%
NO ANSWER	731	11.1%	2600	14.9%	1853	9.5%	5461	11.7%	7922	16.4%	17760	16.8%	1386	9.1%	5948	11.1%	534	10.2%	3779	12.0%
NOT AVAILABLE FOR SCREENING	750	11.4%	1759	10.1%	1895	9.7%	4839	10.4%	3617	7.5%	7457	7.0%	1173	7.7%	4253	7.9%	436	8.3%	2554	8.1%
NOT IN SERVICE	696	10.6%	1072	6.2%	1713	8.8%	3165	6.8%	4440	9.2%	8104	7.7%	1482	9.8%	5511	10.3%	625	12.0%	4017	12.8%
BUSINESS PHONE	810	12.3%	2463	14.1%	2509	12.8%	6552	14.0%	5340	11.1%	11294	10.7%	1990	13.1%	7149	13.3%	680	13.0%	3945	12.5%
LANGUAGE PROBLEM	39	0.6%	111	0.6%	92	0.5%	250	0.5%	254	0.5%	811	0.8%	98	0.6%	273	0.5%	37	0.7%	101	0.3%
REFUSED	194	3.0%	440	2.5%	899	4.6%	1965	4.2%	1920	4.0%	3958	3.7%	478	3.2%	1515	2.8%	279	5.3%	1174	3.7%
ANSWERING MACHINE	435	6.6%	1089	6.2%	850	4.4%	2147	4.6%	5056	10.5%	10291	9.7%	635	4.2%	2100	3.9%	129	2.5%	397	1.3%
WRONG NUMBER	17	0.3%	41	0.2%	79	0.4%	173	0.4%	146	0.3%	264	0.2%	65	0.4%	190	0.4%	31	0.6%	142	0.5%
WRONG COUNTY	96	1.5%	209	1.2%	352	1.8%	780	1.7%	665	1.4%	1177	1.1%	293	1.9%	821	1.5%	114	2.2%	519	1.6%
NOT PERMANENT RESIDENT	49	0.7%	165	0.9%	449	2.3%	875	1.9%	688	1.4%	1230	1.2%	187	1.2%	651	1.2%	58	1.1%	359	1.1%
REFUSE 12 MONTH QUESTION	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
NOT ANSWERED 12 MONTH QUESTION	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
NO FISHING PAST 12 MONTHS	1448	22.0%	3600	20.7%	4407	22.6%	9823	21.0%	8076	16.8%	16273	15.4%	3970	26.2%	13454	25.1%	1294	24.8%	7787	24.8%
REFUSE 2 MONTH QUESTION	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
NOT ANSWERED 2 MONTH QUESTION	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
NO FISHING PAST 2 MONTHS	131	2.0%	347	2.0%	265	1.4%	672	1.4%	331	0.7%	662	0.6%	217	1.4%	858	1.6%	126	2.4%	868	2.8%
FIRST TIME CONTACT/NON- FISHING	4	0.1%	9	0.1%	19	0.1%	36	0.1%	22	0.0%	59	0.1%	14	0.1%	61	0.1%	3	0.1%	40	0.1%
FISHING HOUSEHOLD	28	0.4%	105	0.6%	308	1.6%	809	1.7%	715	1.5%	1408	1.3%	169	1.1%	1046	2.0%	19	0.4%	389	1.2%
TOTALS	6567		17427		19532		46699		48197		105885		15152		53600		5228		31462	